

REMARKS

Following entry of the Reply to Office Action filed July 30, 2007, claims 1-11 were pending in the application. With this reply, claims 1-11 remain pending. Claims 1-3, 6, and 8 stand rejected under 35 U.S.C. § 102(b) for lack of novelty. Claims 1-11 stand rejected under 35 U.S.C. § 103(a) for obviousness. Each of these rejections is addressed below.

Reply to Office Action Filed July 30, 2007

Applicants are submitting a Supplemental Reply to the Office to correct mistakes in the chemical structures appearing on page 9 of the Reply to Office Action filed July 30, 2007. Applicants submit that the error was unintentional. Applicants respectfully request that the Office consider the corrected structures and remarks submitted herewith.

Claims Amendment

Claim 1, as entered in the Reply to Office Action filed July 30, 2007, has been further amended. Support for the present amendment is found in the claims as originally filed. No new matter has been added by the present amendment.

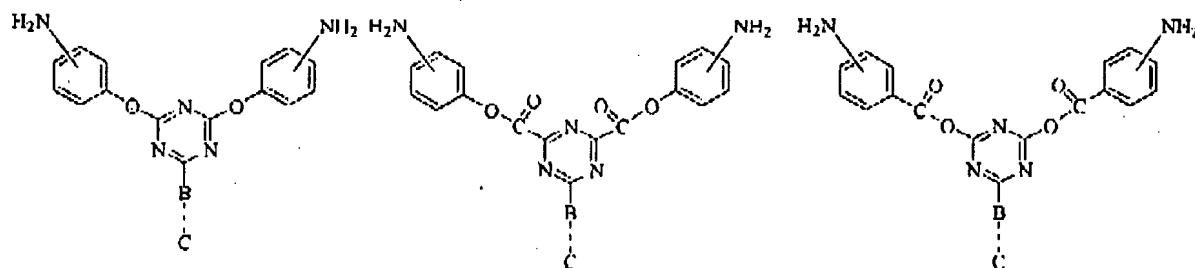
Rejections under 35 U.S.C. § 102(b)

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as anticipated by Butuc et al. (*J. Pol. Sci.* 22:503, 1984; hereafter "Butuc"), Model et al. (U.S. Patent 3,944,547; hereafter "Model"), and Seltzer et al. (U.S. Patent 3,700,665; hereafter "Seltzer"). Claims 1-3, 6, and 8 are rejected under 35 U.S.C. § 102(b) as anticipated by Seltzer et al. (U.S. Patent 3,729,448; hereafter "Seltzer 2"). Applicants have addressed these rejections by the amendment of July 30, 2007, the present amendment, and the following remarks.

As the basis for all of these rejections the Examiner states that Butuc, Model, Seltzer, and Seltzer 2 individually disclose a "diamine structure identical to one, recited in Claims 1 and 2" (Office Action, pg. 2). Each of Butuc, Model, Seltzer, and Seltzer 2 teach diaminotriazines for use in making polyimides. Applicants submit the amended claims are novel over Butuc, Model, Seltzer, and Seltzer 2.

*Claims 1 and 2, as Amended, do not Encompass Compounds Having a Direct Bond Between the Aryl amino Group and the Triazine Ring as Taught by Model, Seltzer, and Seltzer 2.*

As amended, claims 1 and 2 are directed to diaminotriazines in which A (see formula 1 of claim 1) is -O- or -COO- (see structures below):

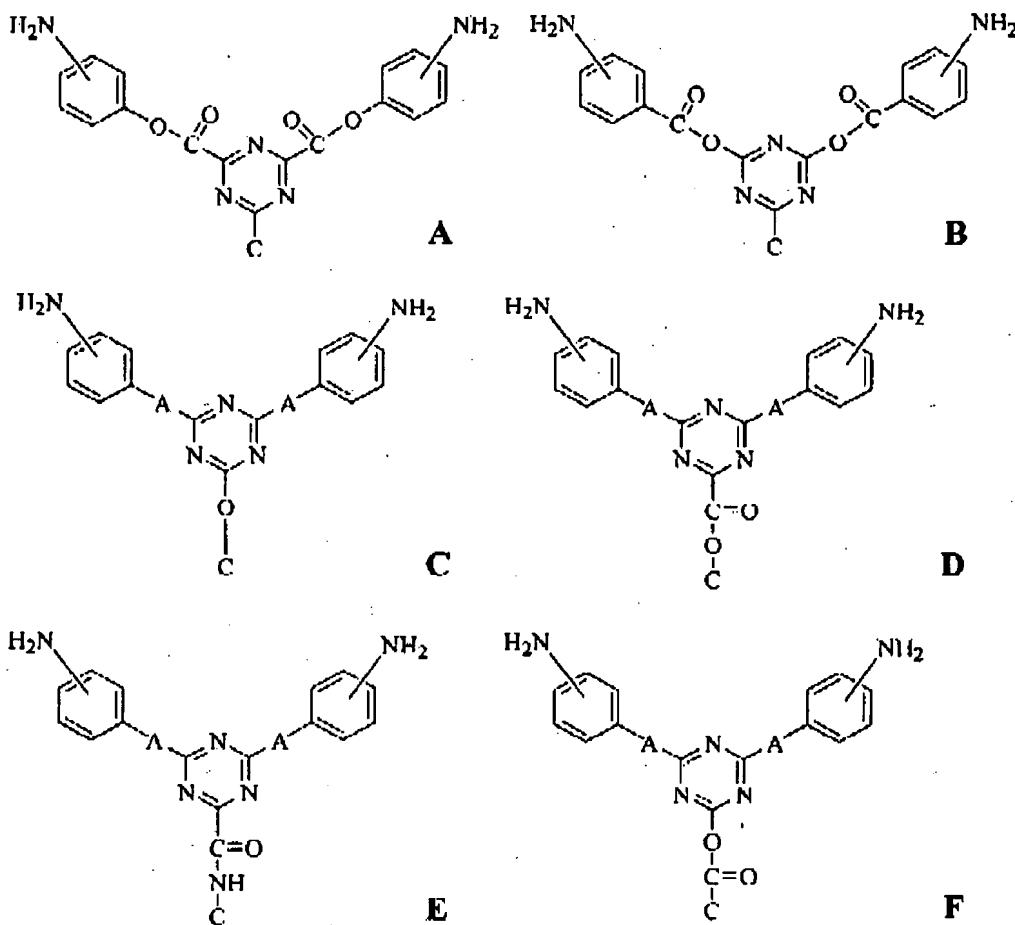


All of the diaminotriazines described by Model, Seltzer, and Seltzer 2 include a direct bond between the arylamino group and the triazine ring system. Most importantly, Model, Seltzer, and Seltzer 2 do not teach or suggest diaminotriazines in which A is -O- or -COO-, as required by claims 1 and 2. Applicants note that the limitations of claims 1 and 2 are incorporated into all of the pending claims. Thus, as amended, claims 1-11 are distinguished from Model, Seltzer, and Seltzer 2 by the limitation that the diaminotriazine include an -O- or -COO- group between the arylamine and the triazine ring.

In view of the amendments to claims 1 and 2, and the remarks above, Applicants respectfully request that the rejection of claims 1 and 2 for anticipation by Model and Seltzer, and the rejection of claims 1-3, 6, and 8 for anticipation by Seltzer 2 be withdrawn.

*Claim 1, as Amended, Does  
not Encompass Compounds Having  
Both (i) an Oxygen Atom Linking the  
Arylamino Group and the Triazine  
Ring and (ii) a Direct Bond Between  
a Phenyl Group and the Triazine Ring  
as Taught by Butuc.*

As amended, claim 1 is directed to diaminotriazines of formula I in which (i) A is -COO- and B is a direct bond and (ii) A is -O- or -COO-, and B is -O-, -COO-, -CONH- or -OCO- (see structures below, where A = -O- or -COO- for structures C-F):

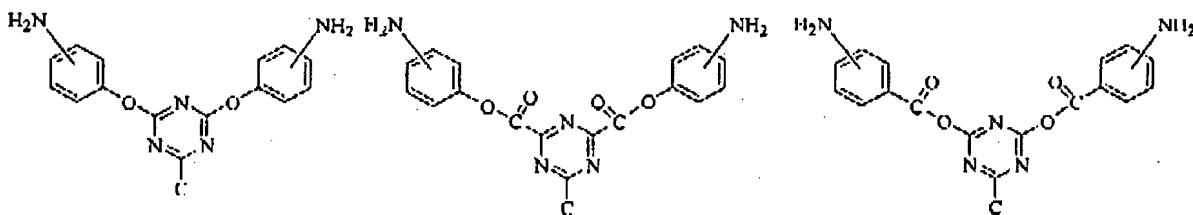


All of the diaminotriazines described by Butuc include an amine or oxygen atom between the arylamino group and the triazine ring system and a direct bond between a phenyl ring and the triazine ring system. Most importantly, Butuc does not teach or suggest diaminotriazines in which A is -COO-. Furthermore, Butuc does not teach or suggest diaminotriazines in which -O-, -COO-, -CONH- or -OCO- link a monovalent organic group (i.e., element C of formula 1 of claim 1) to the triazine ring system. At least one of these distinguishing structural features is required by claim 1.

In view of the amendments to claims 1, and the remarks above, Applicants respectfully request that the rejection of claim 1 for anticipation by Butuc be withdrawn.

*Claim 2, as Amended, Does not Encompass Compounds Having a Direct Bond Between a Phenyl Group and the Triazine Ring as Taught by Butuc.*

As amended, claim 2 is directed to diaminotriazines of formula I in which C is directly bound to the triazine ring and C is selected from a genus of monovalent organic groups which do not include -C<sub>6</sub>H<sub>5</sub> (i.e., a phenyl group) (see structures below):



As noted above, all of the diaminotriazines described by Butuc include an amine or oxygen atom between the arylamino group and the triazine ring system and a direct bond between a phenyl ring and the triazine ring system. Most importantly, Butuc does not teach or suggest diaminotriazines in which A is -COO-, and does not teach or suggest diaminotriazines in which monovalent organic groups other than phenyl are directly bound to the triazine ring system. Because, the monovalent organic groups encompassed by claim 2, as amended, do not include -C<sub>6</sub>H<sub>5</sub> (i.e., phenyl), claim 2 is novel over Butuc.

In view of the amendments to claims 2, and the remarks above, Applicants respectfully request that the rejection of claim 2 for anticipation by Butuc be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 1-8 are rejected under 35 U.S.C § 103(a) as obvious over Seltzer in view of Kawamonzen (U.S. Patent 6,316,170; hereafter "Kawamonzen"). Claims 1-11 are rejected under 35 U.S.C § 103(a) as obvious over Seltzer in view of Machido (U.S. Patent 6,159,654; hereafter "Machido"). Applicants have addressed these rejections by the amendment of July 30, 2007, the present amendment, and with the following remarks.

Examiner states that in view of the structure disclosed by Seltzer, Kawamonzen teaches "a polyamic acid, comprising tetravalent aromatic or alicyclic group (column 13, line 45) and aromatic diamine compounds (column 14, line 35, column 16, line 50) and siloxane-based diamines;" a "dianhydride comprising a aromatic or alicyclic group or

their mixture (column 14, lines 25 and 50);” and a polyamic acid with an inherent viscosity between 0.3 dl/g and 1.5 dl/g (Office Action, pg. 3-4). The Examiner further states that Machido teaches “a polyamic solution with a liquid crystal aligning agent based on heterocyclic cyclic (triazine) containing polyimide;” “a polyamic acid, comprising a tetravalent aromatic or alicyclic group and aromatic diamines compound and siloxane-based diamines;” and “a method of forming liquid crystal element layer by coating polyamic acid onto substrate and...imidizing the coating” (Office Action, pg. 4-5).

Applicants submit that Seltzer in combination with Kawamorzen and/or Machido, considered alone or in combination, fail to teach the diaminotriazines of amended claims 1 and 2. As discussed *supra*, Seltzer fails to teach diaminotriazines in which  $\Delta$  (see formula 1 of claim 1) is -O- or -COO-. Rather, all of the diaminotriazines described by Seltzer include a direct bond between the arylamino group and the triazine ring system. Applicants note that the limitations of claims 1 and 2 are incorporated into all of the pending claims. Accordingly, claims 1-11, as amended, are directed to diaminotriazines, polyamic acids thereof, and liquid crystals thereof that include -O- or -COO- between the arylamine and the triazine ring. This feature is not taught or suggested by Seltzer and this deficiency is not remedied by Kawamorzen or Machido.

Because the prior art relied upon for these rejections fail to teach each and every limitation of claims 1-11, as amended, Applicants submit that the amended claims are not obvious over Seltzer in view of Kawamorzen and/or Machido.

In view of the amendments to claims 1 and 2 and the remarks above, Applicants request withdrawal of the rejection for obviousness.

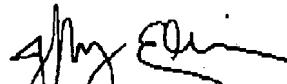
#### CONCLUSION

Applicants submit that the application is now in condition for allowance, and such action is hereby requested.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: August 30, 2007

  
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